Extension No. MM-354
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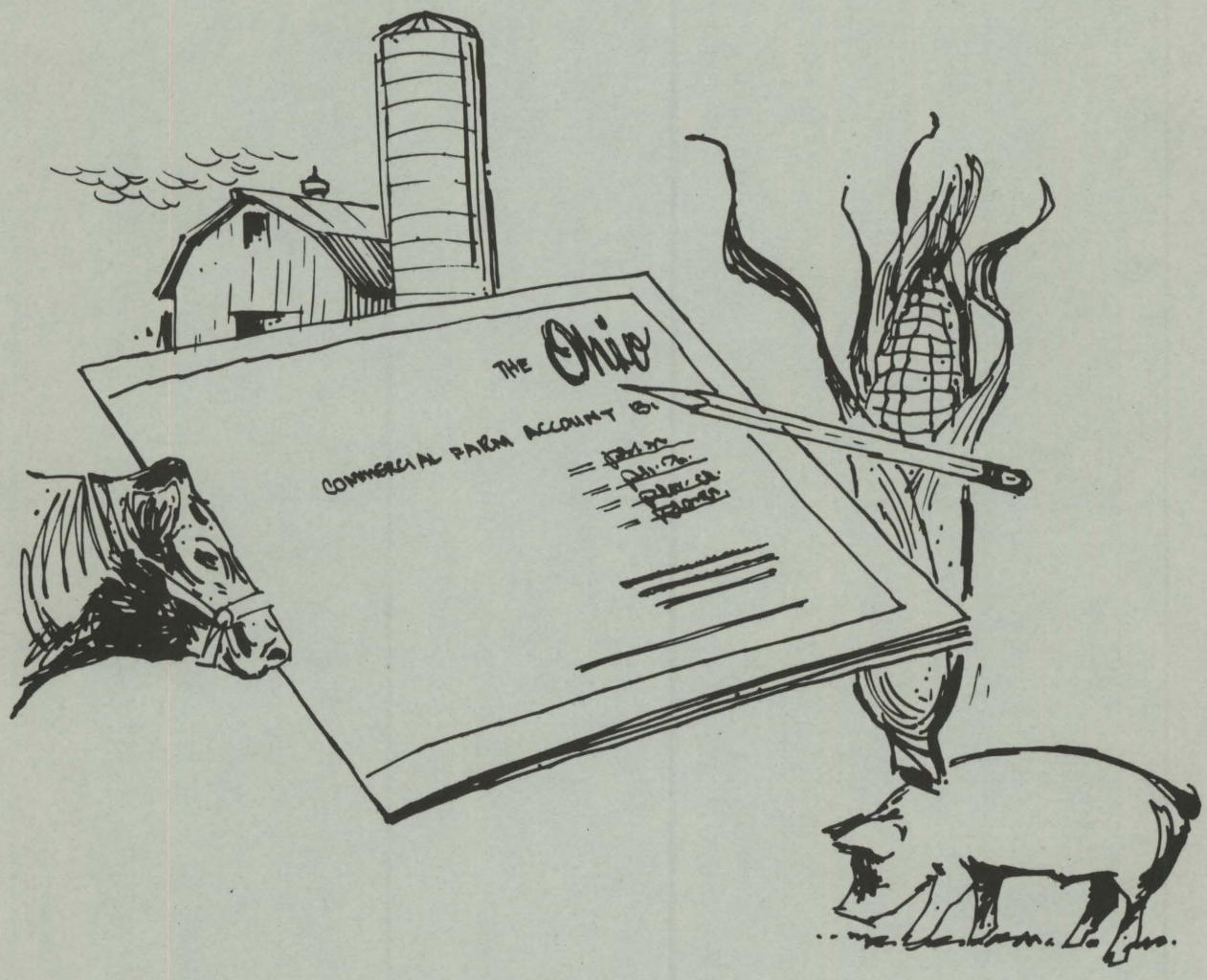
1975
Farm Business Analysis Report
DAIRY SUMMARY BY HERD SIZE



Department of Agricultural Economics and Rural Sociology
Cooperative Extension Service
The Ohio State University
Columbus, Ohio

SUMMARIES AVAILABLE FOR 1975

TOTAL FARM SUMMARIES	ENTERPRISE SUMMARIES INCLUDED
Dairy	Dairy Milk
Dairy By Herd Size	
Swine	Farrow and Finish Finishing Only
Beef	Beef Feeding Beef Breeding
General Crop	Corn Soybeans Wheat Oats Corn Silage Alfalfa Hay Clover-Mixed Hay

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1975 OHIO FARM BUSINESS ANALYSIS SUMMARY

DAIRY FARMS BY SIZE OF HERD

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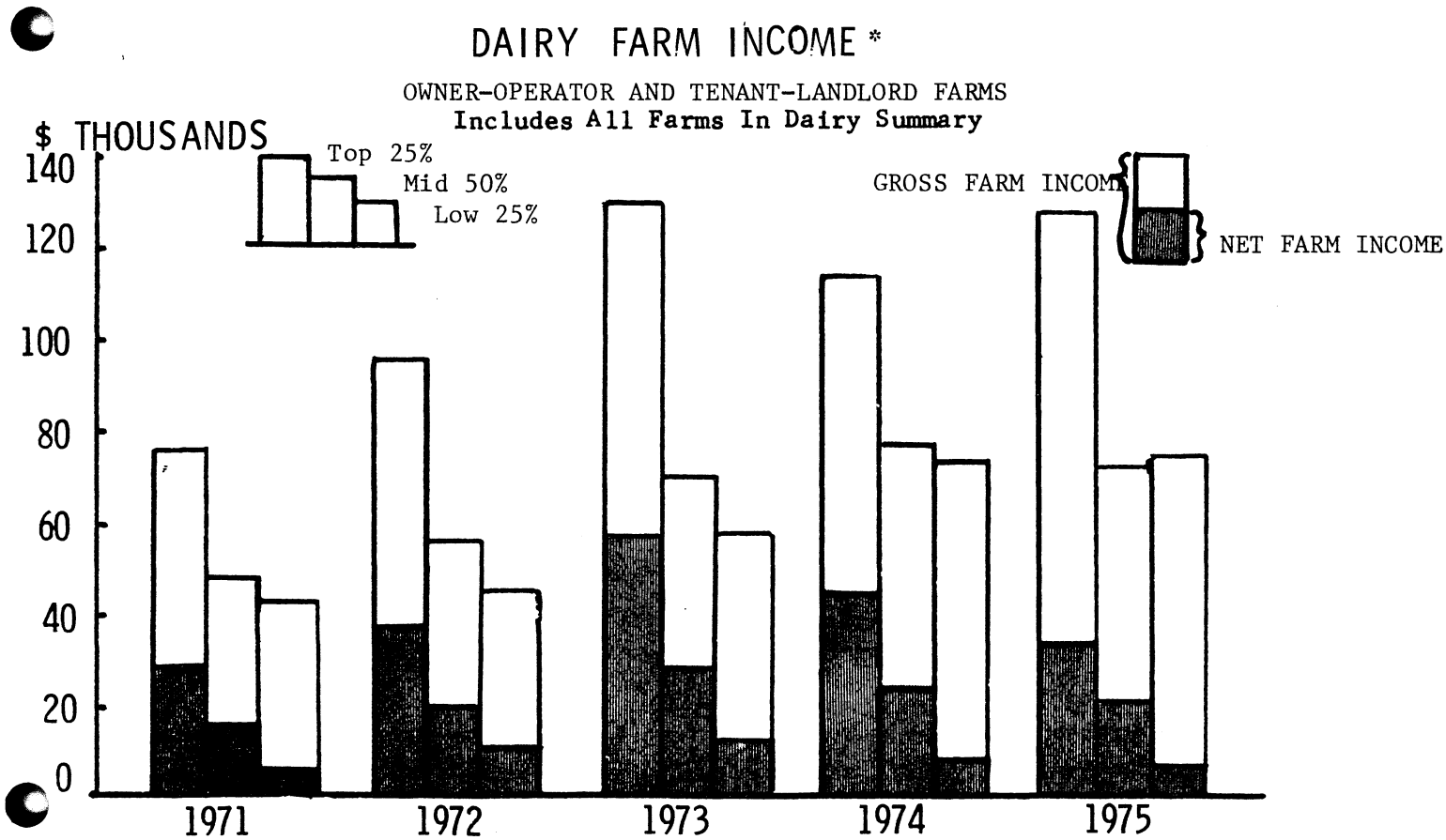
INTRODUCTION

This summary is published as a comparison for dairy farmers. By comparing his own records with the statistics presented here, a dairy farmer can identify strengths and weaknesses of his business. The summary format is very similar to the computer printout of individual business analysis. 530 farmers took advantage of Ohio Farm Business Analysis in 1976 to analyze their 1975 records. This summary uses records of 114 dairy farms split into three groups by the number of cows in the herd. The initial division is: less than 40 cows, 40-79 cows, and 80 or more cows. These groups are further divided into income groups on the basis of return per hour to unpaid operator and family labor.

Figure 1



* See page 14 for definitions of gross and net farm income.

These same 114 farms are divided into income groups only, with more information per group in the 1975 Farm Business Analysis Report, Dairy Summary (Extension number MM 353, ESO 339). To receive an analysis of their own farm, these farmers completed an input form with their Extension Agent, Farm Business Planning and Analysis instructor, or Voc. Agriculture teacher.

FARM INCOME COMPARISONS

The dairy farm income situation for 1971 through 1975 is demonstrated in Fig. 1 on page 1. This graph includes all dairy farms summarized, divided into three income groups. Gross farm incomes increased from 1974 to 1975 but net farm income, the farmers share, decreased to its lowest point since 1971.

Table 1 compares selected measures of income with those of the four previous years for each herd size group. Gross farm incomes were essentially unchanged, however, the 80 or more cow group had 6.9 more cows than in 1974 and produced $4,000 additional gross farm income. Total investment made the highest increase of any physical size measure. Investment increased $20,000 for less than 40 cow herds, $6,000 for 40 to 79 cow herds, and $62,000 for 80 plus cow herds. Farm expenses increased enough more than gross income that net farm income declined from

TABLE 1

SIZE AND INCOME OF FARMS BY HERD SIZE
OHIO, 1971-1975

	SIZE OF FARM				INCOME PER FARM				
	Gross Income	Total Investment	Number of Men	Number of Cows	Net Cash Income	Net Farm Income	Family Labor and Management Income	Return to Investment	
Unit	$	$	M.Y.E.*	Head	$	$	$	$	%
Less Than 40 Cows									
1971	36,703	94,662	1.59	29.7	11,516	11,992	8,029	4,380	4.6
1972	35,214	97,151	1.43	31.9	10,384	12,703	8,901	4,973	5.1
1973	43,114	119,376	1.50	31.8	11,986	17,078	11,953	7,642	6.4
1974	46,663	125,396	1.48	32.1	15,340	17,237	10,303	6,742	5.4
1975	43,679	145,699	1.54	31.2	14,133	13,542	5,352	3,215	2.2
40-79 Cows									
1971	52,166	132,394	2.02	54.2	15,353	15,601	9,968	7,038	5.3
1972	61,304	153,723	2.04	54.3	17,362	21,996	15,543	13,123	8.5
1973	77,634	184,793	2.15	55.9	19,334	30,794	22,733	20,242	11.0
1974	74,118	187,156	1.99	54.3	20,424	22,923	12,861	12,577	6.7
1975	74,158	193,203	2.04	54.7	21,203	21,072	10,525	10,047	5.2
80 Or More Cows									
1971	108,452	255,389	3.36	106.4	26,324	28,554	17,556	19,193	7.5
1972	119,613	262,600	3.26	112.1	26,392	35,017	24,511	25,187	9.6
1973	158,687	338,776	3.45	115.1	25,442	55,266	41,854	45,833	13.5
1974	157,115	331,106	3.55	115.8	35,577	39,075	21,064	24,202	7.3
1975	161,221	392,985	3.65	122.7	37,307	31,567	11,207	18,169	4.6

* M.Y.E. = Man Year Equivalent. One M.Y.E. is defined as 3000 hours.

TABLE 2

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
BY HERD SIZE

	Unit	Less Than 40 Cows	40-79 Cows	80 Or More Cows	All
INCOME					
Cash Receipts	$	39,440	66,701	150,691	78,624
Capital Gains and Losses	$	1,186	2,673	7,534	3,380
Inventory Changes	$	3,154	4,805	3,094	4,156
Feeder Livestock Purchase	$	-101	-21	-98	-51
Gross Income	$	43,679	74,158	161,221	86,109
EXPENSES					
Cash Expenses	$	25,307	45,498	113,384	55,474
Depreciation	$	4,931	7,609	16,368	8,883
Interest Not Charged	$	8,190	10,547	20,360	12,093
Unpaid Operator & Family Labor	$	13,064	14,966	22,512	16,138
Feeder Livestock Purchase	$	-101	-21	-98	-51
Total Farm Expense	$	51,391	78,599	172,526	92,537
MANAGEMENT INCOME & PROFIT					
Total	$	-7,712	-4,441	-11,305	-6,428
As a Percent of Gross Income	%	-17.7	-6.0	-7.0	-7.5
UNPAID OPERATOR & FAMILY LABOR					
Total	$	13,064	14,966	22,511	16,138
As a Percent of Gross Income	%	29.9	20.2	14.0	18.8
OVERHEAD COSTS					
Total	$	18,605	26,091	56,019	30,750
As a Percent of Gross Income	%	42.6	35.2	34.7	35.7
VARIABLE COSTS					
Total	$	19,722	37,542	93,996	45,649
As a Percent of Gross Income	%	45.2	50.6	58.3	53.0
NET CASH INCOME	$	14,133	21,203	37,307	23.150
NET FARM INCOME	$	13,542	21,072	31,567	21,803
INVESTMENT					
Total	$	145,699	193,203	392,985	224,759
Return to Investment	$	3,215	10,047	18,169	10,428
Profit Margin (Percent of Gross)	%	7.4	13.5	11.3	12.1
Turnover (Gross Per $1 Invested)	$	.30	.38	.41	.38
Return on Investment (Percent)	%	2.2	5.2	4.6	4.6
FAMILY LABOR & MANAGEMENT INCOME					
Total	$	5,352	10,525	11,207	9,710
Per Hour	$	1.33	2.30	1.71	1.99
NUMBER OF MEN	M.Y.E.	1.54	2.04	3.65	2.27
NUMBER OF COWS	Hd.	31.2	54.7	122.7	64.1
LABOR EFFICIENCY FACTOR	%	71.5	84.5	100.6	88.1
NUMBER OF FARMS	No.	21	70	23	114

8 to 25 percent. Returns to labor and management and returns on investment were reduced 18-50%.

Table 2 on page 3 gives a broader picture of 1975 income and expenses. As herd size increases, labor absorbs less of the gross farm income. The number of cows which can be taken care of per man increases dramatically as larger herds spread the cost of improved technology and facilities over more hundredweight of milk. By this same principle, overhead costs as a percent of gross farm income decreases with larger herds. Variable costs such as hired labor, interest, purchased feed, and rent are much higher for larger herds, as they substitute these for operator labor and land to raise feed.

All three herd sizes had negative management income and profit figures. Therefore, the return to their labor was less than desirable.

MILK PRODUCTION COST

Milk and Dairy Enterprises had higher profits in 1975 than in 1974, even though the total farm didn't do as well. The cost of producing a hundredweight of milk is a good indicator of the relative efficiency of two farms, two years, or two groups of farms. Table 3 includes data from all farms summarized from 1971 to 1975 regardless of herd size. Price per hundredweight of milk (adjusted to 3.5% butterfat) is compared to the cost of producing it for upper 25% and lower 25% farms in each of 5 years. With the exception of lower 25% farms in 1972, the cost of production made its first decline in 5 years. Milk prices continued to increase in 1975, though at a much slower rate than in the previous two years.

Figure 2 separates feed and labor costs out of the total production costs reported in Table 3. The biggest cost decrease was feed. 50 to 65 percent of milk production cost is feed cost, therefore declines in feed grain and protein costs show up immediately in the total cost of producing milk. The lower price of grain in 1975 helps explain why net farm income is lower for the total farm, yet there was more profit in the dairy enterprise. With the exception of low 25% farms in 1972, labor costs have been very stable. Labor costs have remained quite stable throughout the five year period.

TABLE 3

COMPARISON OF PRICE RECEIVED WITH TOTAL COST OF PRODUCING MILK, OHIO, 1971-1975

	Upper 25% Farms			Lower 25% Farms		
	Price Received	Cost of Production	Profit (Loss)	Price Received	Cost of Production	Profit (Loss)
	$ Per Cwt	$ Per Cwt	$ Per Cwt	$ Per Cwt	$ Per Cwt	$ Per Cwt
1971	5.64	4.73	.91	5.40	6.96	(1.56)
1972	5.70	5.12	.58	5.57	6.37	(.80)
1973	6.66	6.02	.64	6.36	7.71	(1.35)
1974	7.86	8.44	(.58)	7.84	11.19	(3.35)
1975	8.01	8.07	(.06)	7.94	10.18	(2.24)

Figure 2

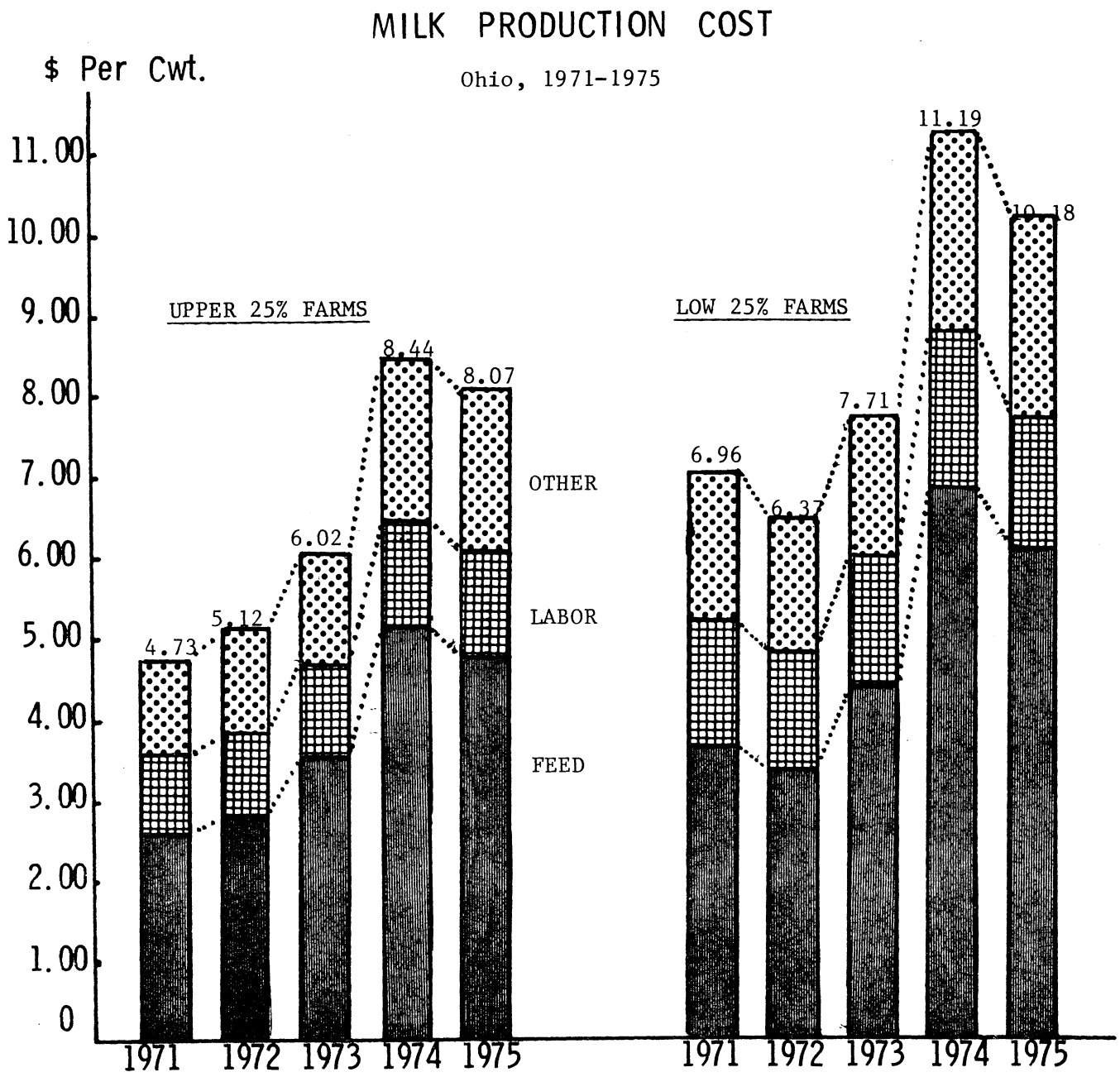


Figure 3 (Page 6) and Figure 4 (page 7) break down the cost of producing milk in 1975 into six cost categories. Feed is split into Home Grown and Purchased. Labor is split into Hired and Unpaid. Other expenses are split into Cash and Non-Cash.

Figure 3 shows the percentage of total cost allocated to each cost item. These percentages show the relative importance of cutting costs of each cost item for different herd sizes. For example, cutting feed costs by only 3% would have the same effect on total costs as cutting labor costs by 7% for less than 40 cow herds, 11% for 40-79 cow herds, and 12% for 80 or more cow herds. Labor is 22% of the total cost in small herds and only 15% in large herds. Other cash and non-cash expenses are quite similar for all herd sizes as a percentage, however the actual dollar difference may be important.

Figure 3

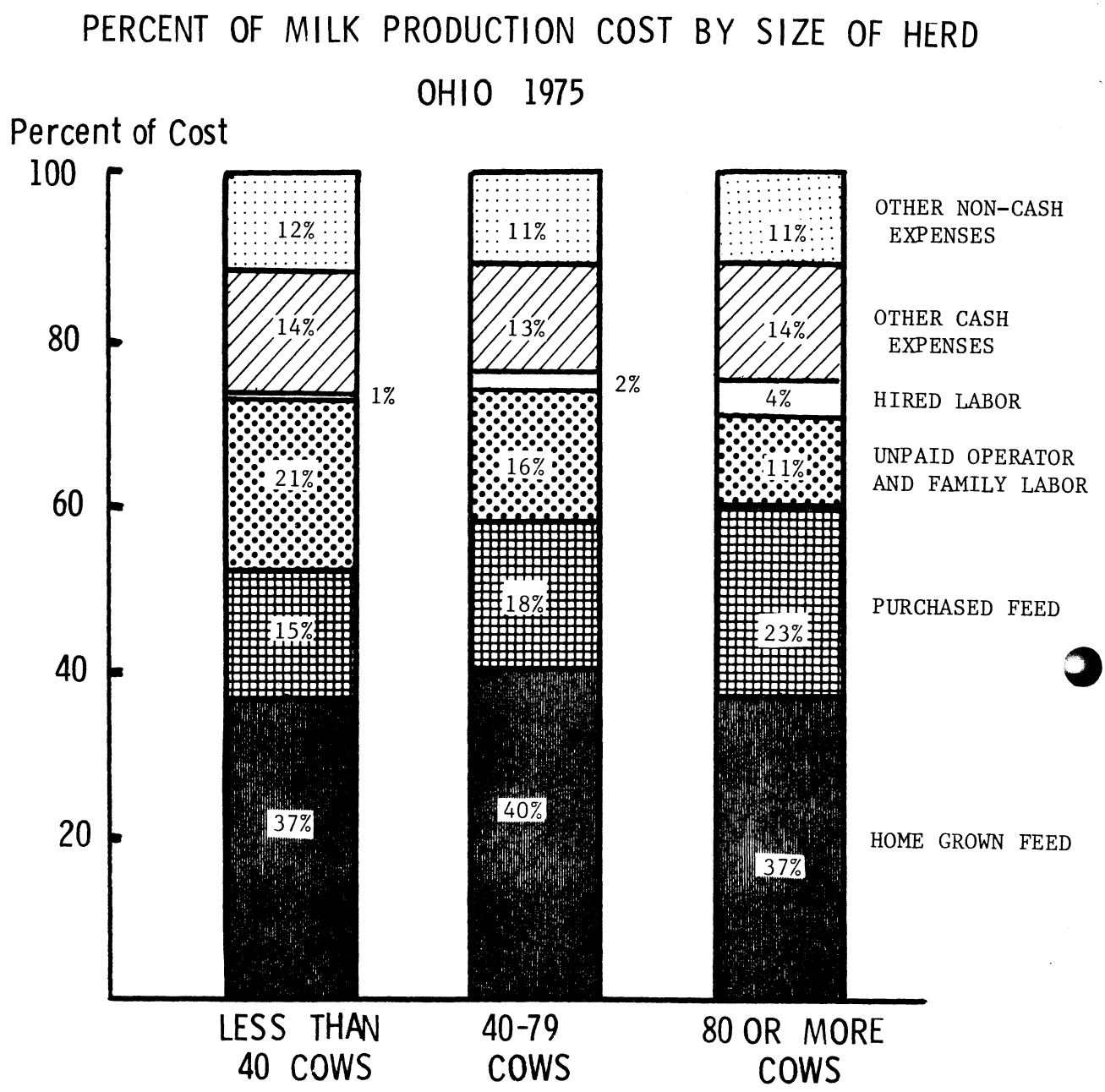


Figure 4 expresses costs of production in dollars and cents. Even though the percentage of feed cost is higher for larger herds, the actual expense is slightly less.

DIFFERENCES WITHIN HERD SIZES

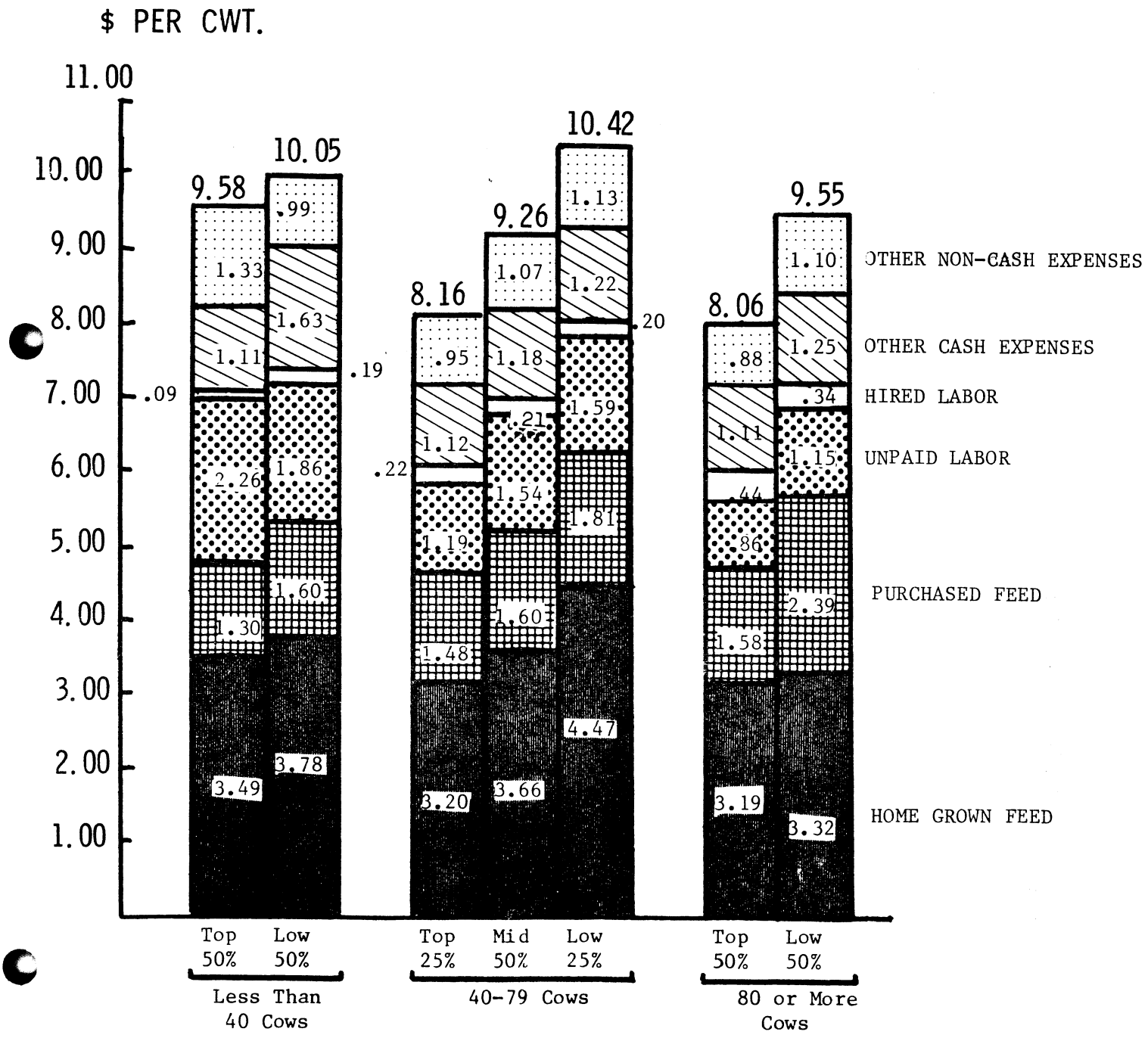
The main body of tables on pages 8-13 gives selected farm efficiency measures for different income groups in each herd size. The farms are divided into income groups by the return per hour to Family Labor and Management Income.

There are profitable and unprofitable farms within each herd size group. By comparing his own records to those of similar size dairy herds a farmer may be able to spot the profit leaks in his own dairy business, attack those problem areas, and improve his income.

Figure 4

COST OF PRODUCING MILK

OHIO, 1975



1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
LESS THAN 40 COWS

	Unit	Upper 50%	Average	Lower 50%	My Farm
INCOME					
Cash Receipts	$	42,523	39,440	36,637	
Capital Gains and Losses	$	1,383	1,186	1,007	
Inventory Changes	$	4,494	3,154	1,937	
Feeder Livestock Purchase	$	-26	-101	-170	
Gross Farm Income	$	48,374	43,679	39,411	
EXPENSES					
Cash Expenses	$	22,289	25,307	28,052	
Depreciation	$	5,183	4,931	4,701	
Interest Not Charged	$	8,843	8,190	7,595	
Unpaid Operator & Family Labor	$	15,153	13,064	11,166	
Feeder Livestock Purchase	$	-26	-101	-170	
Total Farm Expense	$	51,442	51,391	51,344	
MANAGEMENT INCOME & PROFIT					
Total	$	-3,068	-7,712	-11,933	
As a Percent of Gross Income	%	-6.3	-17.7	-30.3	
UNPAID OPERATOR & FAMILY LABOR					
Total	$	15,153	13,064	11,166	
As a Percent of Gross Income	%	31.3	29.9	28.3	
OVERHEAD COSTS					
Total	$	18,425	18,605	18,766	
As a Percent of Gross Income		38.1	42.6	47.6	
VARIABLE COSTS					
Total	$	17,864	19,722	21,412	
As a Percent of Gross Income	%	36.9	45.2	54.4	
NET CASH INCOME	$	20,234	14,133	8,585	
NET FARM INCOME	$	20,928	13,542	6,828	
INVESTMENT					
Total	$	142,173	145,699	148,905	
Return to Investment	$	7,593	3,215	-766	
Profit Margin (Percent of Gross)	%	15.7	7.4	-1.9	
Turnover (Gross Per $1 Invested)	$	.34	.30	.26	
Return on Investment (Percent)	%	5.3	2.2	-.5	
FAMILY LABOR & MANAGEMENT INCOME					
Total	$	12,085	5,352	-767	
Per Hour	$	2.72	1.33	-.21	
LABOR EFFICIENCY FACTOR	%	64.1	71.5	78.6	
NUMBER OF FARMS	No.	10	21	11	

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
LESS THAN 40 COWS

	Unit	Upper 50%	Average	Lower 50%	My Farm
SIZE OF BUSINESS					
Number of Men	M.Y.E.	1.58	1.54	1.50	
Number of Cows	Hd.	31.0	31.2	31.4	
Pounds of 3.5 Milk Sold	Lb.	418,553	400,147	383,415	
Total Harvested Crop Acres	A.	140	143	145	
Acres Corn & Corn Silage	A.	51	51	53	
Soybean Acres	A.	4	4	5	
Alfalfa & Clover-Mixed Hay	A.	10 & 31	6 & 30	3 & 30	&
Capital Investment	$	142,173	145,699	148,905	
Gross Income	$	48,374	43,679	39,411	
Value of All Crops	$	24,554	23,142	21,858	
Value of Net Livestock Increase	$	38,437	36,355	34,463	
EFFICIENCY FACTORS					
Gross Income Per Man	$	30,616	28,363	26,274	
Total Labor & Management Income Per Fulltime Operator	$	10,242	4,779	-724	
All Crop Production Value Per Acre	$	175	162	151	
Machinery Investment Per Tillable Acre	$	141	127	115	
Machinery Cost Per Tillable Acre	$	58	57	56	
Harvested Crop Acres Per Man	A.	89	93	97	
MILK PRODUCTION COSTS PER CWT.					
Purchased Feed	$	1.30	1.45	1.60	
Hired Labor	$	.09	.14	.19	
Paid Interest	$	.21	.34	.47	
Breeding Fees	$	.09	.14	.19	
Other Cash	$	.81	.88	.97	
Total Cash Expenses	$	2.50	2.95	3.42	
Homegrown Feeds	$	3.49	3.63	3.78	
Depreciation	$	.52	.52	.50	
Unpaid Labor	$	2.26	2.06	1.86	
Interest Not Charged	$	.81	.65	.49	
Total Non-Cash Expenses	$	7.08	6.86	6.63	
Total Cost of Milk Sold	$	9.58	9.81	10.05	
DAIRY PERFORMANCE FACTORS					
Value of Milk Sold, Per Cwt.	$	8.02	7.90	7.79	
Pounds of 3.5 Milk Sold Per Cow	Lb.	13,502	12,825	12,211	
Dairy Returns Per $1 Feed Fed	$	1.67	1.55	1.44	
Pounds of Milk Sold Per Man					
Total Farm	Lb.	264,907	259,836	255,160	
Enterprise Only	Lb.	431,498	421,207	412,274	
Number of Cows Per Man					
Total Farm	Hd.	20	20	21	
Enterprise Only	Hd.	32	33	34	
Value of Dairy Increase	$	3,761	3,146	2,587	
Value fo Milk Sold	$	33,572	31,624	29,853	
Total Value of Dairy Production	$	37,333	34,770	32,440	
Value of Production Per Cow	$	1,204	1,114	1,033	
Value of Milk Sold Per Cow	$	1,066	1,014	951	
Feed Cost for Milk Per Cow	$	640	651	713	
Value of Milk Over Feed Cost Per Cow	$	426	363	238	
Unpaid Labor and Mgmt. Income Per Cow	$	105	22	-54	

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
40-79 COWS

	Unit	Upper 25%	Middle 50%	Lower 25%	My Farm
INCOME					
Cash Receipts	$	76,846	67,259	54,810	
Capital Gains and Losses	$	2,959	2,758	2,193	
Inventory Changes	$	12,603	3,648	-1,065	
Feeder Livestock Purchase	$	-72	-4	-2	
Gross Income	$	92,336	73,661	55,936	
EXPENSES					
Cash Expenses	$	50,555	44,832	41,514	
Depreciation	$	7,989	7,687	7,046	
Interest Not Charged	$	11,939	10,732	8,695	
Unpaid Operator & Family Labor	$	13,957	16,369	13,144	
Feeder Livestock Purchase	$	-72	-4	-2	
Total Farm Expense	$	84,368	79,616	70,397	
MANAGEMENT INCOME & PROFIT					
Total	$	7,968	-5,955	-14,461	
As a Percent of Gross Income	%	8.7	-8.1	-25.9	
UNPAID OPERATOR & FAMILY LABOR					
Total	$	13,957	16,369	13,144	
As a Percent of Gross Income	%	15.1	22.2	23.5	
OVERHEAD COSTS					
Total	$	28,103	26,222	23,689	
As a Percent of Gross Income	%	30.4	35.6	42.4	
VARIABLE COSTS					
Total	$	42,308	37,025	33,564	
As a Percent of Gross Income	%	45.8	50.3	60.0	
NET CASH INCOME	$	26,291	22,427	13,296	
NET FARM INCOME	$	33,864	21,146	7,378	
INVESTMENT					
Total	$	204,664	198,337	170,500	
Return to Investment	$	23,317	8,919	-1,675	
Profit Margin (Percent of Gross)	%	25.3	12.1	-3.0	
Turnover (Gross Per $1 Invested)	$	.45	.37	.33	
Return on Investment (Percent)	%	11.4	4.5	-1.0	
FAMILY LABOR & MANAGEMENT INCOME					
Total	$	21,925	10,414	-1,317	
Per Hour	$	4.98	2.17	-.31	
LABOR EFFICIENCY FACTOR	%	91.7	81.2	83.9	
NUMBER OF FARMS	No.	18	35	17	

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
40-79 COWS

	Unit	Upper 25%	Middle 50%	Lower 25%	My Farm
SIZE OF BUSINESS					
Number of Men	M.Y.E.	1.99	2.10	1.95	
Number of Cows	Hd.	54.8	55.4	53.1	
Pounds of 3.5 Milk Sold	Lb.	780,374	750,036	631,608	
Total Harvested Crop Acres	A.	223	198	193	
Acres Corn & Corn Silage	A.	92	78	81	
Soybean Acres	A.	7	12	1	
Alfalfa & Clover-Mixed Hay	A.	23 & 30	16 & 33	9 & 46	&
Capital Investment	$	204,664	198,337	170,500	
Gross Income	$	92,336	73,661	55,936	
Value of All Crops	$	41,759	36,320	30,324	
Value of Net Livestock Increase	$	70,959	67,224	53,105	
EFFICIENCY FACTORS					
Gross Income Per Man	$	46,400	35,077	28,685	
Total Labor & Management Income Per Fulltime Operator	$	17,264	7,714	-1,062	
All Crop Production Value Per Acre	$	190	183	157	
Machinery Investment Per Tillable Acre	$	134	140	126	
Machinery Cost Per Tillable Acre	$	62	66	65	
Harvested Crop Acres Per Man	A.	112	94	99	
MILK PRODUCTION COSTS PER CWT.					
Purchased Feed	$	1.48	1.60	1.81	
Hired Labor	$	.22	.21	.20	
Paid Interest	$	.18	.26	.25	
Breeding Fees	$	.16	.14	.12	
Other Cash	$	.78	.78	.85	
Total Cash Expenses	$	2.82	2.99	3.23	
Homegrown Feeds	$	3.20	3.66	4.47	
Depreciation	$	.44	.46	.49	
Unpaid Labor	$	1.19	1.54	1.59	
Interest Not Charged	$	.51	.61	.64	
Total Non-Cash Expenses	$	5.34	6.27	7.19	
Total Cost of Milk Sold	$	8.16	9.26	10.42	
DAIRY PERFORMANCE FACTORS					
Value of Milk Sold, Per Cwt.	$	7.92	8.05	8.12	
Pounds of 3.5 Milk Sold Per Cow	Lb.	14,240	13,539	11,895	
Dairy Returns Per $1 Feed Fed	$	1.69	1.52	1.29	
Pounds of 3.5 Milk Sold Per Man					
Total Farm	Lb.	392,148	357,160	323,902	
Enterprise Only (Milk Summary)	Lb.	629,334	528,070	447,410	
Number of Cows Per Man					
Total Farm	Hd.	28	26	27	
Enterprise Only (Dairy Summary)	Hd.	40	36	36	
Value of Dairy Increase	$	7,142	5,608	1,576	
Value of Milk Sold	$	61,816	60,373	51,317	
Total Value of Dairy Production	$	68,958	65,981	52,893	
Value of Production Per Cow	$	1,258	1,191	996	
Value of Milk Sold Per Cow	$	1,128	1,090	966	
Feed Cost for Milk Per Cow	$	667	714	747	
Value of Milk Over Feed Cost Per Cow	$	461	376	219	
Unpaid Labor and Mgmt. Income Per Cow	$	151	48	-87	

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
80 OR MORE COWS

	Unit	Upper 50%	Average	Lower 50%	My Farm
INCOME					
Cash Receipts	$	162,107	150,691	140,227	
Capital Gains and Losses	$	10,357	7,534	4,947	
Inventory Changes	$	8,669	3,094	-2,018	
Feeder Livestock Purchase	$		-98	-187	
Gross Farm Income	$	181,133	161,221	142,969	
EXPENSES					
Cash Expenses	$	113,256	113,384	113,501	
Depreciation	$	17,446	16,368	15,381	
Interest Not Charged	$	19,193	20,360	21,429	
Unpaid Operator & Family Labor	$	21,323	22,512	23,601	
Feeder Livestock Purchase	$		-98	-187	
Total Farm Expense	$	171,218	172,526	173,725	
MANAGEMENT INCOME & PROFIT					
Total	$	9,915	-11,305	-30,756	
As a Percent of Gross Income	%	5.5	-7.0	-21.5	
UNPAID OPERATOR & FAMILY LABOR					
Total	$	21,323	22,511	23,601	
As a Percent of Gross Income	%	11.8	14.0	16.5	
OVERHEAD COSTS					
Total	$	56,431	56,019	55,641	
As a Percent of Gross Income	%	31.1	34.7	38.9	
VARIABLE COSTS					
Total	$	93,464	93,996	94,483	
As a Percent of Gross Income	%	51.6	58.3	66.1	
NET CASH INCOME	$	48,851	37,307	26,726	
NET FARM INCOME	$	50,431	31,567	14,274	
INVESTMENT					
Total	$	348,261	392,985	433,982	
Return to Investment	$	36,034	18,169	1,792	
Profit Margin (Percent of Gross)	%	19.9	11.3	1.3	
Turnover (Gross Per $1 Invested)	$	.52	.41	.33	
Return on Investment (Percent)	%	10.3	4.6	0.4	
FAMILY LABOR & MANAGEMENT INCOME					
Total	$	31,238	11,207	-7,155	
Per Hour	$	5.29	1.71	-1.00	
LABOR EFFICIENCY FACTOR	%	106.6	100.6	94.6	
NUMBER OF FARMS	No.	11	23	12	

1975 OHIO DAIRY FARM BUSINESS ANALYSIS SUMMARY
80 OR MORE COWS

	Unit	Upper 50%	Average	Lower 50%	My Farm
SIZE OF BUSINESS					
Number of Men	M.Y.E.	3.79	3.65	3.51	
Number of Cows	Hd.	130.3	122.7	115.8	
Pounds of 3.5 Milk Sold	Lb.	1,792,512	1,665,071	1,548,251	
Total Harvested Crop Acres	A.	414	371	332	
Acres Corn & Corn Silage	A.	192	162	134	
Soybean Acres	A.	9	21	33	
Alfalfa & Clover-Mixed Hay	A.	31 & 22	23 & 30	16 & 38	&
Capital Investment	$	348,261	392,985	433,982	
Gross Income	$	181,133	161,221	142,969	
Value of All Crops	$	73,894	74,902	75,827	
Value of Net Livestock Increase	$	166,070	149,742	134,774	
EFFICIENCY FACTORS					
Gross Income Per Man	$	47,792	44,170	40,732	
Total Labor & Management Income Per Fulltime Operator	$	18,268	6,209	-3,766	
All Crop Production Value Per Acre	$	178	202	228	
Machinery Investment Per Tillable Acre	$	143	164	188	
Machinery Cost Per Tillable Acre	$	73	76	79	
Harvested Crop Acres Per Man	A.	109	102	95	
MILK PRODUCTION COSTS PER CWT.					
Purchased Feed	$	1.58	1.97	2.39	
Hired Labor	$	.44	.39	.34	
Paid Interest	$	.12	.20	.28	
Breeding Fees	$	.13	.12	.10	
Other Cash	$	.86	.86	.87	
Total Cash Expenses	$	3.13	3.54	3.98	
Homegrown Feeds	$	3.19	3.25	3.32	
Depreciation	$	.40	.44	.49	
Unpaid Labor	$	.86	1.00	1.15	
Interest Not Charged	$	.48	.54	.61	
Total Non-Cash Expenses	$	4.93	5.23	5.57	
Total Cost of Milk Sold	$	8.06	8.77	9.55	
DAIRY PERFORMANCE FACTORS					
Value of Milk Sold, Per Cwt.	$	8.13	8.04	7.94	
Pounds of 3.5 Milk Sold Per Cow	Lb.	13,757	13,570	13,370	
Dairy Returns Per $1 Feed Fed	$	1.70	1.54	1.39	
Pounds of 3.5 Milk Sold Per Man					
Total Farm	Lb.	472,958	456,184	441,097	
Enterprise Only	Lb.	688,545	650,418	611,474	
Number of Cows Per Man					
Total Farm	Hd.	34	34	33	
Enterprise Only	Hd.	45	43	42	
Value of Dairy Increase	$	17,687	14,215	11,033	
Value of Milk Sold	$	145,791	133,841	122,887	
Total Value of Dairy Production	$	163,478	148,056	133,920	
Value of Production Per Cow	$	1,255	1,207	1,156	
Value of Milk Sold Per Cow	$	1,119	1,091	1,061	
Feed Cost for Milk Per Cow	$	735	784	833	
Value of Milk Over Feed Cost Per Cow	$	384	307	228	
Unpaid Labor and Mgmt. Income Per Cow	$	144	39	-69	

GLOSSARY OF SELECTED TERMS*

GROSS FARM INCOME - is the sum of all cash receipts plus increases in inventory and capital gains less decreases in inventory, capital losses, and feeder livestock purchases. Feeder livestock purchases are deducted to reflect on farm production.

INTEREST NOT CHARGED - represents an estimated charge for equity capital. It is determined by taking seven and one half percent of total investment and subtracting the amount of interest paid during the year. This calculation makes a similar charge for the total investment of each farm business.

UNPAID OPERATOR & FAMILY LABOR - is the wage charge for the operator and unpaid family labor using the time worked and rates per hour estimated by the farm operator.

TOTAL FARM EXPENSE - is the sum of all cash and non-cash expense for the farm less the cost of purchased feeder livestock. Non-cash expense includes depreciation, interest not charged and unpaid operator and family labor charge.

MANAGEMENT INCOME & PROFIT - equals Gross Income minus Total Farm Expense. This represents the return to management income and profit after all cash and non-cash expenses are deducted.

UNPAID LABOR & MANAGEMENT INCOME - equals Management Income and Profit plus Unpaid Operator and Family Labor. This represents the return to the operator and his family for their unpaid labor, management and profit.

NET FARM INCOME - equals Unpaid Labor and Management Income plus Interest Not Charged. This represents the return to the operator for equity capital, unpaid labor, management and profit.

RETURN TO INVESTMENT - equals Management Income and Profit plus paid and unpaid interest. Paid and unpaid interest equals seven and one half percent of Total Investment. This represents the return to all capital, owned and borrowed plus management and profit. This return times 100 divided by Total Investment gives Percent Return on Investment.

OVERHEAD COSTS - is the sum of depreciation, building repairs, interest paid, property taxes, cash rent, insurance and interest not charged. These represent costs that are essentially fixed and must be recovered regardless of the level of production.

VARIABLE COSTS - is the sum of all cash expenses other than those included in Overhead Costs. These costs vary with the level of production.

NUMBER OF MAN-YEAR EQUIVALENTS - represents the number of full-time man equivalents used on the farm for the entire year. Family labor is adjusted to a man-equivalent basis. One man-year equivalent is 3,000 hours.

*A complete listing of calculations is contained in occasional paper #300, "An Aid to Understanding the Individual Print-out."

VALUE OF ALL CROPS - represents all crop production valued at market price (not necessarily sold) plus government crop payments. Value of pasture is not included.

VALUE OF NET LIVESTOCK INCREASE - is the net value of livestock and livestock products produced during the year. This includes breeding fees, livestock products and livestock sold less value of livestock purchased during the year plus or minus changes in livestock inventory.

RETURN PER $ FEED FED TO ALL LIVESTOCK ENTERPRISES - equals the Value of Net Livestock Increase divided by the Total Value of Feed Fed to All Livestock. The returns per dollar of feed fed should pay for the feed, labor, overhead on buildings and equipment required by livestock, other production costs, and provide a profit.

MACHINERY COST PER TILLABLE ACRE - is the sum of fuel, oil, grease, repairs and machine hire expenditures plus charges for depreciation and investment, less custom work receipts divided by total tillable acres. Total tillable acres equal total harvested crop acres plus acres of rotation pasture.

PROFIT MARGIN - equals Management Income and Profit plus paid and unpaid interest divided by gross income times 100. This percent shows the dollars of profit and interest received as a percent of each dollar of gross income.

TURNOVER - equals Gross Income divided by Total Investment. This is the same as the Gross Income Per $1,000 Invested figure, but is given as a decimal figure rather than a return per $1,000. It gives the dollars of gross income received during the year for each dollar of investment.

RETURN ON INVESTMENT - equals Management Income and Profit plus paid and unpaid interest divided by Total Investment. This is the same as Percent Return on Investment. It gives the dollars of profit and interest received during the year as a percent of each dollar of investment.

LABOR EFFICIENCY FACTOR - the total standard PMWU's for all enterprises are added together and the total is divided by the Number of Man Equivalent Hours Used (as reported on page 1 of the input form 7363). This figure is multiplied by 100 to give a percent. If more units per hour were cared for than the standard, this factor will be larger than 100.

SAMPLE POPULATION

The 114 owner-operator and tenant-landlord dairy farm records summarized in this report are part of 530 farm records of all types submitted by Ohio farmers to Ohio State University for analysis in 1976. Not all farm records were complete and accurate enough to be included in the summaries.

June, 1976

COMPARE YOURSELF TO OHIO'S TOP DAIRYMEN

Enter performance records from your farm to compare with the upper groups of similar sized herds from the 1975 Ohio Farm Business Analysis.

	Unit	My Farm	Herd Size: 39 or Less Upper 50%	Herd Size: 40-79 Upper 25%	Herd Size: 80+ Upper 50%	Projection for next yr.
Am I Fully Employed?						
1. Cows Per Man - Total farm	Hd.		20	28	34	
- Enterprise	Hd.		32	40	45	
2. Lbs. 3.5 Milk Sold Per Man - Farm	Lb.		265,000	392,000	473,000	
- Enterprise	Lb.		431,000	629,000	689,000	
3. Harvested Crop Acres Per Man	A.		89	112	109	
How Well Do My Cows Perform?						
4. Lbs. 3.5 Milk Per Cow	Lb.		13,500	14,200	13,800	
5. Value of Milk Sold Per Cow	$		1,066	1,128	1,119	
6. Dairy Returns Per $1 Feed Fed	$		1.67	1.69	1.70	
7. Milk Value Over Feed Cost/Cow	$		426	461	384	
8. Value of Milk Sold Per Cwt.	$		8.02	7.92	8.13	
9. Cost of Milk Production Per Cwt.	$		9.58	8.16	8.06	
How Well Do My Crops Perform?						
10. All Crop Production Value Per Acre	$		175	190	178	
11. Machinery Investment Per Tillable Acre	$		141	134	143	
12. Machinery Cost Per Tillable Acre	$		58	62	73	
How Sound Is My Operation Financially?						
13. Gross Income Per Man	$		31,000	46,000	48,000	
14. Overhead Costs As a % of Gross	%		38	30	31	
15. Profit Margin	%		16	25	20	
16. Turnover	$/$		.34	.45	.52	
17. Return On Investment	%		5	11	10	